

Unit 7 -Day 3 Percent Problems

1) You and a friend went to Taco Bell for lunch. The total bill including tax was \$16.94. Find the cost of the food and the amount of tax. NOTE: Pennsylvania sales tax is 6%

$$\begin{aligned}\text{let } c &= \text{cost of food (\$)} \\ .06c &= \text{amt of tax} \\ \text{Cost of food} + \text{Amt of tax} &= \text{Total Amt paid} \\ 1c + .06c &= 16.94 \\ 1.06c &= 16.94 \\ c &= \$15.98\end{aligned}$$

2) Twenty-six percent of George's gross monthly income goes to taxes, retirement and insurance. What is left is called his net income. His mortgage is \$675 which is 24% of his net income. What is his gross monthly income?

$$\begin{aligned}\text{let } g &= \text{gross monthly income (\$)} \\ .74g &= \text{net income (\$)} \\ \text{mort.} &= 24\% \text{ of net income} \\ \{ 675 &= .24(.74g) \\ g &= \frac{675}{(.24)(.74)} = \$3800.68\end{aligned}$$